

REMARKS

Status of the Claims.

Claims 1, 3, 4, 6, 7, and 11 are pending with entry of this amendment, claims 2, 4, 8-10, and 12-54 being cancelled and no claims being added herein. Claims 1, 3, 6, and 11 are amended herein. These amendments introduce no new matter. Support is replete throughout the specification (e.g., in the claims as originally filed).

Election/Restriction.

Pursuant to a restriction requirement made final, Applicants cancel claims 8-10 and 12-54 with entry of this amendment. Please note, however, that Applicants reserve the right to file subsequent applications claiming the canceled subject matter and the claim cancellations should not be construed as abandonment or agreement with the Examiner's position in the Office Action.

Claim Objections.

Claim 1 was objected to because it had two periods at the end of the claim. Claim 1 is amended herein thereby obviating this objection.

35 U.S.C. §112, First Paragraph.

Claims 1-7, and 9 were rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description. In particular, the Examiner alleged that i) there was no basis for the skilled artisan to envision genomic embodiments of EG-1 allegedly encompassed by the rejected claims; ii) there was allegedly no basis for the skilled artisan to envision a sufficient number of specific amplification products that are embraced by the rejected claims to describe the genus; and iii) the specification allegedly does not describe a sufficient number of specific pairs of primers to describe the broadly claimed genus of such primer pairs.

Claim 1, as amended herein is directed to:

1. An isolated nucleic acid consisting of a nucleic acid that encodes the human EG-1 polypeptide having the sequence of SEQ ID NO:2.

There simply is no question that Applicants were in possession of a nucleic acid sequence that encodes the human EG-1 polypeptide of SEQ ID NO:2. Accordingly, claim 1, and

dependent claims 3, 4, 6, 7, all meet the written description requirement and the rejection on these grounds should be withdrawn.

Please note, however, that the amendment of claim 1 should not be construed as abandonment or agreement with the Examiner's position in the Office Action. Applicants reserve the right to file subsequent applications claiming the amended matter.

35 U.S.C. §112, second Paragraph.

Claims 1-7, and 11 were rejected under 35 U.S.C. §112, second paragraph, as explained and addressed below.

Claim 1 was rejected under 35 U.S.C. §112, second paragraph, as indefinite because the recitation "... specifically hybridizing to a human EG-1 cDNA or a fragment thereof under stringent hybridization conditions. . . ". Claim 1 is amended herein to eliminate this language thereby obviating this rejection.

Claim 1 was rejected under 35 U.S.C. §112, second paragraph, as indefinite, because the metes and bounds of the phrase "... of sufficient length that said nucleic acid can uniquely indicate the presence or absence of a human EG-1 total genomic DNA pool, a total cDNA pool, or a total mRNA pool sample from an endothelial. . . are allegedly unclear. Claim 1 is amended herein to eliminate this language thereby obviating this rejection.

Claim 1 was rejected under 35 U.S.C. §112, second paragraph, as indefinite because it was allegedly unclear whether the words "a human EG-1 polypeptide" followed by the parenthetical use of the words "SEQ ID NO:2" was allegedly unclear as to whether the phrase encompasses only the full length sequence or whether it also encompasses fragments. Claim 1 is amended herein to recite "... that encodes the human EG-1 polypeptide having the sequence of SEQ ID NO:2" thereby obviating this rejection.

Claim 1 was rejected under 35 U.S.C. §112, second paragraph, as indefinite, because the metes and bounds of the parenthetical phrase "coding region of SEQ ID NO:1" are allegedly unclear. Claim 1 is amended herein to eliminate this language thereby obviating this rejection.

Claim 1 was rejected under 35 U.S.C. §112, second paragraph, as indefinite, because the metes and bounds of the phrase "... a pair of primers that . . . specifically amplifies a nucleic acid encoding a human EG-1 polypeptide (SEQ ID NO:2) . . . " are allegedly unclear. Claim 1 is amended herein to eliminate this language thereby obviating this rejection.

Claim 11 was rejected under 35 U.S.C. §112, second paragraph, as indefinite, because of the recitation of "an EG-1 polypeptide". Claim 11 is amended herein to recite "... an EG-1 polypeptide having the amino acid sequence of SEQ ID NO:2." thereby obviating this rejection.

These amendments are made to expedite prosecution and should not be construed as abandonment or agreement with the Examiner's position in the Office Action. Applicants reserve the right to file subsequent applications claiming the amended matter.

35 U.S.C. §102.

Claims 1-5, and 11 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by Schmitt *et al.* (WO 99/47655 A) or Schmitt *et al.* (WO 99/53040 A). In particular, the Examiner alleges that each of the applications teach nucleic acid sequences that encode a protein comprising a polypeptide sequence having 100% identity with SEQ ID NO:2 (*e.g.*, SEQ ID NO:259 from WO 9953040 and SEQ ID NO:65 from WO 99/47655).

Claim 1, as amended herein, now recites:

1. An isolated nucleic acid **consisting of** a nucleic acid that encodes the human EG-1 polypeptide having the sequence of SEQ ID NO:2. [emphasis added]

The nucleic acid sequence of SEQ ID NO: 259 in WO 05/53040 is 1088 nucleotides in length, while a nucleic acid encoding the peptide of SEQ ID NO:2 (as presently recited in amended claim 1) is 534 nucleotides. The nucleic acid sequence of SEQ ID NO:65 in WO 99/47655 is 1071 nucleotides. The cited art thus discloses nucleic acids that are considerably longer than the presently claimed nucleic acid. Moreover, the cited art fails to specifically identify the presently claimed sequence. Accordingly, the cited art fails to anticipate the presently pending claims and the rejections under 35 U.S.C. §102(b) should be withdrawn.

35 U.S.C. §103(a).

Claims 6-7 were rejected under 35 U.S.C. §103(a) as allegedly obvious in light of Schmitt *et al.* (WO 99/47655 A) or Schmitt *et al.* (WO 99/53040 A). The Examiner alleged that these references disclosed the presently claimed sequence, but did not explicitly teach the use of a labeled

nucleic acid. The Examiner then alleged that it would be obvious to use labeled probes to identify homologs of the genes identified in the cited references. Applicants traverse.

As indicated above, Claim 1, as amended herein, now recites:

1. An isolated nucleic acid **consisting of** a nucleic acid that encodes the human EG-1 polypeptide having the sequence of SEQ ID NO:2. [emphasis added]

Claims 6 and 7 are directed to labeled forms of the nucleic acid of claim 1, while claim 11 is directed to

11. A cell transfected **with a nucleic acid of claim 4**, wherein said nucleic acid **expresses an EG-1 polypeptide having the amino acid sequence of SEQ ID NO:2**.

The cited PCT applications simply identify a large number of expressed sequence tags (ESTs). As explained above, the sequences identified by the Examiner are considerably longer than the presently recited sequence.

Moreover, the cited art fails to in any way identify, teach, or suggest a polypeptide having the amino acid sequence of SEQ ID NO:2. There are numerous possible starting points, and numerous possible reading frames available in the sequences cited by the Examiner. The cited art simply offers no teaching or suggestion that would lead one of ordinary skill to select a particular nucleic acid sequence that encoding the protein of SEQ ID NO:2.

Lacking any identification or teaching whatsoever regarding the protein of SEQ ID NO:2, the cited art offers no teaching or motivation that would lead one of skill to produce a cell transfected with the nucleic acid recited in presently pending claim 4 that expresses a polypeptide having the amino acid sequence of SEQ ID NO:2.

The cited art thus fails to teach or suggest the presently pending claims and the rejection under 35 U.S.C. §103(a) should be withdrawn.

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. Should the Examiner seek to maintain the rejections, Applicants request a telephone interview with the Examiner and the Examiner's supervisor.

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If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (510) 769-3513.

QUINE INTELLECTUAL PROPERTY LAW
GROUP, P.C.
P.O. BOX 458
Alameda, CA 94501
Tel: 510 337-7871
Fax: 510 337-7877

Respectfully submitted,



Tom Hunter
Reg. No: 38,498